

## **ABSTRACT OF THE DISCLOSURE**

Practical diagnostic ultrasound arrays invariably exhibit a degree of unwanted inter-element cross coupling or cross talk. This results in degraded beam performance that in turn results in degraded image resolution (spatial resolution and contrast performance). Current approaches to reducing inter element coupling may be costly and may make the transducer array fragile. There is a need to overcome the cross talk problem with minimal expense and impact on reliability. The approach taken here overcomes a substantial component of the cross talk with minimal expense. The approach is versatile and has applicability in both transmit and receive. The approach improves image resolution. This technique has particular applicability in the field of silicon substrate based MEMS transducers in which the continuous, low loss, silicon wafer substrate gives rise to significant unwanted cross talk.